



Eastern Snake Plain Aquifer (ESPA) Comprehensive Aquifer Management Plan

Recharge Working Group Meeting

Draft Meeting Summary August 5, 2009, 2009 (Teleconference Call)

Agenda

- Constructed sites – criteria and analysis (PPT by Bill Quinn)
- Late Season Recharge 2009
 - Input from July 23, 2009 Board Meeting
 - What is the expected volume of storage water for late season recharge efforts? (Bureau of Reclamation)
 - Hydrologic analysis – residence time and geographic location (PPT presentation)
 - Funding for late season recharge
 - Coordination efforts with the Board, BOR and canal companies
- Recharge Liability

Meeting Notes

Constructed Sites

The Working Group agreed to pursue the following three constructed recharge sites (constructed) for these reasons:

- 1) **Egin Lakes (existing site)** –potential to quickly develop with enlarging/cleaning canal; size of area
- 2) **Mile Post 31** – primarily due to the topography (vertical drop of 30-50 ft) , size of site (360 usable acres), retention time; approved BLM Environmental Assessment (EA) (may require update) and an understood willingness by the BLM to implement a site. Coordination with BLM is needed to determine level of effort to implement EA; BLM may be willing to expedite process. In addition to the site specific recharge effort there is an additional 30 mile of canal losses.
- 3) **Wood River** – develop a site to utilize the Board's recharge permit – likely on the Dietrich system (Section 16 – state land)

Additional analysis may include:

- Overlay of any municipal well capture areas for the sites to investigate water quality issues further. Barry Burnell will solicit information and be prepared to discuss water quality concerns regarding the three priority areas at the Implementation Committee meeting on August 13.
- Members identified that it could be important to examine sites within the 1 mile radius but would not cause water quality problems, i.e. the site specific characteristics; concern that viable sites may have been eliminated by 1-mile radius criteria. It was emphasized that the effort was not to create rigid absolutes but focus WG/Committee's time/energy developing viable sites.
- Permeability Criteria – it was noted that the emphasis on high permeability doesn't provide as much water quality filtration; while low permeability projects protect water quality. It was noted that NRCS analysis focused on top 5ft of top soil layer. Additional site specific evaluation is anticipated.
- Land Status – Group discussed possible land swap with BLM/state lands but it was noted that this is in a very preliminary stage.
- Water availability – do we have enough water to go to all the sites? Targets – sites may be used 4 years out of 10; need to implement plan for be used; choice as to which sites get the available supply; 1) Board's natural flow right (how to allocate natural flow to sites) 2) when abundant, supplies of water can go wherever
- Additional cost analysis (including a projection based on water availability and frequency the sites will be used), analysis of project completion time for constructed recharge sites will be conducted (IDWR); additional hydrologic analysis that provides a systematic view of the impact, versus just site specific.
- Initial discussions with canal managers needed to develop the 3 priority recharge sites.

Late Season Recharge 2009

Board requested a 2009 late season recharge proposal from the Committee at the September meeting. Rich Rigby provided information regarding available water supply for later season. Estimated reservoir storage content will be over 2.3 million acre-feet which is better than average although there has been heavier demand on storage than anticipated. An estimate of a late season recharge program of 50 kaf – 100kaf appears reasonable at this point. We will revisit available water supply for recharge in September.

Principles for Late Season Recharge 2009

- Use the CAMP target of 50-50 split above and below American Falls, while also being opportunistic.
- Consider sites that have longer retention time to avoid recharge of storage water returning to storage water issue.
- Consider further issue of water availability and canal capacity with the potential IGWA mitigation plan. Could impact NSCC capacity;

Steady State and Transient Impacts

Bill Quinn presented the steady state and transient impact presentation developed by Alan Wylie. Major insights include:

- Emphasis should be on the significant amount of water that stays in the aquifer over a long period of time versus returns to the river (amount varies according to location of recharge, i.e. closer to river = shorter retention time). Graph should outline water remaining in the aquifer versus water returning to river and have consistent scales.
- Graphs and explanations should emphasize the cumulative nature of recharge efforts versus one-time effects. Additional recognition that recharge will not occur in a single event but will be over a period of weeks/months needs to be considered. Should not reject a recharge site based only on a single event.

Issues regarding recharge at Milner Gooding and calculated up-gradient effect were questioned; some thought that this shows an anomaly in the model although the issue has been thoroughly vetted by the ESHMC. Others explained that it creates a ‘water dam’ and reverses the ground water gradient.

Recharge Liability

John Holman, Deputy AG, described his exploration of the liability issues of a recharge effort (flooding and environmental).

- Spoke with insurance agent (Jim Peterson – writes most of the liability policies for canal companies); appears that canal companies that participate in recharge are already covered in existing policies including flooding/water saturation and pollution (herbicides, pesticide). A specific question regarding recharge coverage was posed to the insurance underwriter and awaiting a response. If the underwriter indicates that canals are not covered under the policy, special endorsement on existing policy could be requested.
- Policies, according to insurance agent, do not make a difference when the recharge takes place or if it is part of the calendar of coverage. Need to explore further.
- A different concern is the large constructed sites like LRSARD and MP 31– beyond canals. Explore later in the process.

Action	Responsible
Modify steady state-transient time to emphasize water in aquifer/not return flows; cumulative analysis of recharge effects. For August 13 Committee meeting.	Bill Quinn/Allan Wylie
Need a recharge transient time analysis for just the Egin Lakes, not including Fremont Madison. Bryce Contour or Allan Wylie may have already conducted.	Bill Quinn
Information regarding water quality issues regarding the three constructed sites areas for the Implementation Committee meeting on August 13	Barry Burnell

As of early September, revisit estimated carryover for late season recharge efforts	Rich Rigby
Additional cost analysis for three constructed sites (including a projection of how frequently the sites will be used), time to project completion; additional hydrologic analysis should provide systematic view of the benefits, versus just site specific.	IDWR
Initial discussions with canal managers needed to develop the 3 priority recharge sites	IDWR
Explore whether there is an earlier water forecast from the Climate Action Group for 2010	Brian/Hal
Further explanation of liability issues	John Holman – AG’s office

MEETING ATTENDEES

Recharge Working Group Members

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|----|---------|----------|-----------------------|
| 1. | Peter | Anderson | Conservation |
| 2. | Rebecca | Casper | Development interests |
| 3. | Jeff | Raybould | Surface water |
| 4. | Linda | Lemmon | Spring Users |
| 5. | Scott | Clawson | GW |
| 6. | Lloyd | Hicks | Surface water |
| 7. | Steve | Howser | Surface water users |

Ex Officio Members and Other Attendees

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|-----|----------|---------|-------------------|
| 8. | Jonathan | Bartsch | CDR Associates |
| 9. | Brian | Patton | IDWR |
| 10. | Rich | Rigby | BOR |
| 11. | Bill | Quinn | IDWR |
| 12. | Mike | Webster | Governor’s Office |
| 13. | Bill | Quinn | IDWR |
| 14. | Barry | Burnell | IDEQ |